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Claim Amendments

1. (original) An apparatus, comprising:

a pendulous sensor component that reacts to a parameter; and

one or more pickoff sensors that sense a value of the parameter from a substantially zero net dampening torque location of the pendulous sensor component.

2. (currently amended) The apparatus of claim 1, wherein the parameter comprises a rotation parameter, wherein the one or more pickoff sensors obtain the value of the rotation parameter from the substantially zero net dampening torque location of the pendulous sensor component;

one or more dampener components that control a rotation of the pendulous sensor component, wherein the rotation parameter is based on the rotation of the pendulous sensor component;

wherein one or more of the one or more dampener components cause an application of a dampening torque to the pendulous sensor component, wherein one or more locations of one or more of the one or more pickoff sensors serve to promote a reduction of the dampening torque.

3-4. (canceled)

5. (original) The apparatus of claim 1, wherein the pendulous sensor component comprises a pressure sensitivity, wherein one or more locations of one or more of the one or more pickoff sensors serve to promote a reduction of the pressure sensitivity of the pendulous sensor component.

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6. (original) The apparatus of claim 1, wherein the pendulous sensor component is coupled with a frame, wherein one or more of the one or more pickoff sensors comprise one or more pickoff electrodes that serve to sense a change in a capacitance between the pendulous sensor component and the frame.

7. (original) The apparatus of claim 6, wherein the pendulous sensor component comprises a pressure sensitivity, wherein one or more of the one or more pickoff electrodes employ the change in the capacitance to promote a reduction in the pressure sensitivity of the pendulous sensor component.

8. (original) The apparatus of claim 1, wherein the pendulous sensor component is coupled with a drive component through employment of a hinge, wherein the parameter comprises a torque parameter derived from a torque on the pendulous sensor component, wherein the pendulous sensor component employs the torque parameter to accomplish one or more oscillations of the pendulous sensor component about the hinge.

9. (original) The apparatus of claim 8, wherein one or more of the one or more pickoff sensors sense the value of the torque parameter to promote a reduction of the torque parameter on the pendulous sensor component.

10. (previously presented) The apparatus of claim 8, wherein the drive component comprises a dither drive component, wherein the hinge comprises a flexure hinge component, wherein the dither drive component applies an acceleration on the pendulous sensor component to obtain the torque parameter.

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11. (previously presented) The apparatus of claim 10, wherein one or more of the one or more pickoff sensors serve to promote a reduction of the acceleration on the pendulous sensor component

12. (previously presented) The apparatus of claim 10, wherein the pendulous sensor component comprises a pressure sensitivity, wherein one or more locations of one or more of the one or more pickoff sensors serve to promote a reduction in the pressure sensitivity of the pendulous sensor component.

13. (original) The apparatus of claim 1, wherein the pendulous sensor component comprises one or more grooves, wherein one or more of the one or more grooves determine a location of one or more of the one or more pickoff sensors.

14. (original) An electromechanical gyroscope, comprising:
a pendulous sensor component that reacts to a parameter;
one or more pickoff sensors that obtain a value of a rotation from a substantially zero net dampening torque location of the pendulous sensor component; and
wherein a location of the one or more pickoff sensors promotes a reduction in a pressure sensitivity of the pendulous sensor component.

15. (original) A method, comprising the steps of:
obtaining a value of a rotation parameter from a substantially zero net dampening torque location of a pendulous sensor component; and
employing the value of the rotation parameter to make a determination of one or more locations of one or more pickoff sensors.

16. (original) The method of claim 15, wherein the pendulous sensor component is coupled with one or more dampeners, wherein the rotation parameter comprises a dampening torque, wherein the step of employing the value of the rotation parameter to make the determination of the one or more locations of the one or more pickoff sensors comprises the steps of:

measuring the value of the dampening torque of one or more of the one or more dampeners;

employing the value of the dampening torque to make the determination of the one or more locations of the one or more pickoff sensors; and

employing the determination of the one or more locations of the one or more pickoff sensors to promote a reduction of the dampening torque.

17. (original) The method of claim 15, wherein the pendulous sensor component comprises a pressure sensitivity, wherein the pendulous sensor component is coupled with a frame, wherein one or more of the one or more pickoff sensors comprise one or more pickoff electrodes, the method further comprising the steps of:

sensing a change in a capacitance between the pendulous sensor component and the frame; and

employing the change in the capacitance to promote a reduction in the pressure sensitivity of the pendulous sensor component.

18. (original) The method of claim 15, wherein the pendulous sensor component is coupled to a drive component through employment of a hinge, wherein the rotation parameter comprises a torque parameter derived from a torque on the pendulous sensor component, wherein the step of obtaining the value of the torque parameter from the substantially zero net dampening torque location of the pendulous sensor component comprises the steps of:

employing the torque parameter provided by the drive component to accomplish one or more oscillations of the pendulous sensor component about the hinge;

measuring the value of the torque parameter at the pendulous sensor component;

sensing the value of the torque parameter from the substantially zero net dampening torque location of the pendulous sensor component.

19. (original) The method of claim 18, wherein the pendulous sensor component comprises a pressure sensitivity, wherein the drive component generates an acceleration to derive the torque parameter on the pendulous sensor component, wherein the step of sensing the value of the torque parameter from the substantially zero net dampening torque location of the pendulous sensor component comprises the steps of:

employing the determination of the one or more locations of the one or more pickoff sensors to promote a reduction of the acceleration on the pendulous sensor component from the substantially zero net dampening torque location of the pendulous sensor component; and

employing the determination of the one or more locations of the one or more pickoff sensors to promote a reduction in the pressure sensitivity of the pendulous sensor component.

20. (previously presented) The method of claim 15, wherein the pendulous sensor component comprises one or more grooves, wherein the step of employing the value of the rotation parameter to determine the one or more locations of the one or more pickoff sensors comprises the steps of:

determining one or more locations of one or more of the one or more grooves; and

employing one or more of the one or more locations of the one or more of the one or more grooves and the value of the rotation parameter to determine one or more of the one or more locations of the one or more pickoff sensors.

21. (previously presented) The apparatus of claim 1, further comprising a dither drive component that induces a relative oscillation between the pendulous sensor component and a frame.

22. (previously presented) The apparatus of claim 21, wherein the relative oscillation between the pendulous sensor component and the frame induces dampening forces on the pendulous sensor component.

23. (previously presented) The apparatus of claim 22, wherein the parameter comprises an angular rate of the pendulous sensor component, wherein upon occurrence of the angular rate, a Coriolis force acts on the pendulous sensor component, wherein the dampening forces are in phase with the Coriolis force;

wherein the one or more pickoff sensors sense the value of the angular rate from the substantially zero net dampening torque location of the pendulous sensor component to promote a reduction of the effect of the dampening forces on a measurement of the Coriolis force.

24. (previously presented) The apparatus of claim 1, wherein one or more first dampening forces act on the pendulous sensor component, wherein one or more second dampening forces act on the pendulous sensor component;

wherein at the substantially zero net dampening torque location, the one or more first dampening forces cancel the effects of the one or more second dampening forces.

25. (previously presented) The method of claim 15, wherein a dither drive component induces a relative oscillation between the pendulous sensor component and a frame, wherein the relative oscillation between the pendulous sensor component and the frame induces dampening forces on the pendulous sensor component;

wherein the rotation parameter comprises an angular rate of the pendulous sensor component, wherein upon occurrence of the angular rate, a Coriolis force acts on the pendulous sensor component, wherein the dampening forces are in phase with the Coriolis force;

the method further comprising the step of:

locating the one or more pickoff sensors on the frame at the substantially zero net dampening torque location of the pendulous sensor component to promote a reduction of effect of the dampening forces on a measurement of the Coriolis force.

26. (new)   The apparatus of claim 1, wherein the substantially zero net dampening torque location of the pendulous sensor component is based on geometry of the pendulous sensor component.

27. (new)   The apparatus of claim 1, wherein the substantially zero net dampening torque location comprises a center of percussion and/or a center of pressure of the pendulous sensor component.